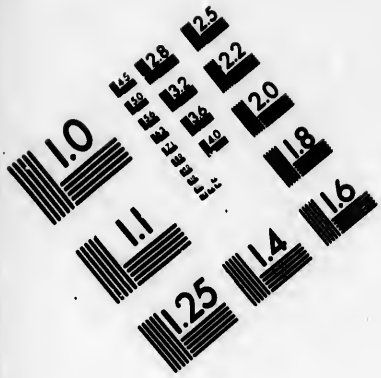


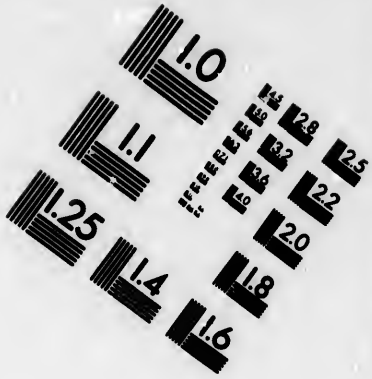
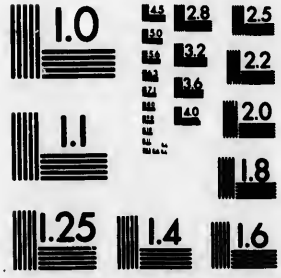
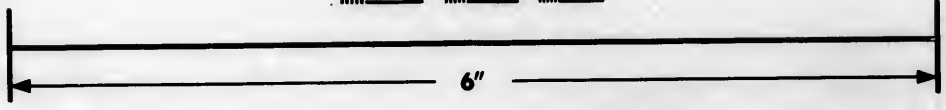
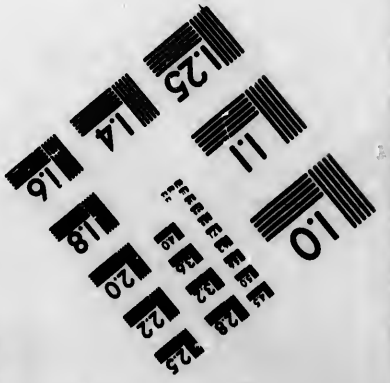


IMAGE EVALUATION TEST TARGET (MT-3)







Photographic Sciences Corporation

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

Technical and Bibliographic Notes/Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured covers/ Couverture de couleur
- ☐ Covers damaged/ Couverture endommagée
- ☐ Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/ Le titre de couverture manque
- ☐ Coloured maps/ Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- ☐ Bound with other material/ Relié avec d'autres documents
- ☐ Tight binding may cause shadows or distortion along interior margin/ La reliure serrée peut causer de l'ombre ou de la distortion le long de la marge intérieure
- ☐ Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/ Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- ☐ Additional comments:/ Commentaires supplémentaires:

- ☐ Coloured pages/ Pages de couleur
- ☐ Pages damaged/ Pages endommagées
- ☐ Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☑ Pages detached/ Pages détachées
- ☑ Showthrough/ Transparence
- ☐ Quality of print varies/ Qualité inégale de l'impression
- ☐ Includes supplementary material/ Comprend du matériel supplémentaire
- ☐ Only edition available/ Seule édition disponible
- ☐ Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image/ Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
					X						

The copy filmed here has been reproduced thanks to the generosity of:

Library of the Public
Archives of Canada

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol → (meaning "CONTINUED"), or the symbol ▽ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:

L'exemplaire filmé fut reproduit grâce à la générosité de:

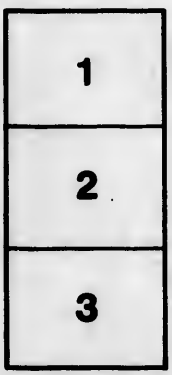
La bibliothèque des Archives
publiques du Canada

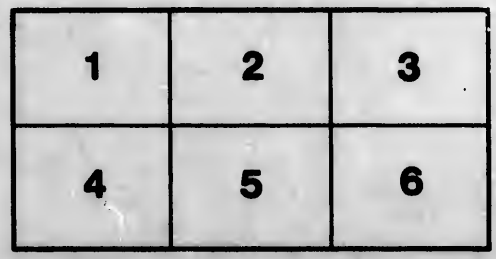
Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole → signifie "A SUIVRE", le symbole ▽ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.





ADDRESS

DELIVERED AT THE

Opening of the Session

OF 1862-63.

BY JOHN LANGTON, M. A., PRESIDENT.

It has not, I believe, hitherto been the custom in this Society for the Annual Session to be opened by an address from the Chair; but it has been thought advisable to conform in this respect to the practice usually followed in similar Societies elsewhere, and in accordance with this determination I now address you. The same custom, which so universally prevails, has established a recognized form upon which these opening discourses are moulded. The President generally reviews the progress of science during the past year, chronicles the leading discoveries and improvements, and laments over the great names that have departed from the scene of their labours since the Society last met together. Where a Society is exclusively devoted to a particular branch of science, or the speaker himself holds the position of a leading authority in some special department, these annual addresses have often a more limited range; but they all form a very interesting portion of our scientific literature, serving as landmarks in the history of science, and taking stock as it were periodically of our fresh acquisitions. I do not, however, propose upon the present occasion to follow this course. Our country is too young, and Canadians generally too exclusively engaged in the hard battle of life, to afford me much room for a *resumé* of the contributions of Canada towards the common stock of knowledge, and I am deterred from attempting a more

general review, both from the extensiveness of the field, and from the consciousness that the same thing is being done elsewhere by men of much superior ability, and having far better opportunities of knowing and appreciating the importance of the leading novelties, which the year has brought forth. I cannot even fall back upon another favorite topic with those in a similar position to myself, and set before you the great things you have done for Literature and Science, and congratulate you upon the flourishing condition and increasing usefulness of your Society. If I look to our history, I see but the signs of a premature decay, interrupted by some praiseworthy attempts at revival, and two calamitous fires which have swept away the collections accumulated by the diligence of nearly forty years. If both the present and the past are thus closed to me, I have only the future remaining, which I can make the subject of my address; and it is the future of the Society, to which I wish to call your attention. My desire is to show you what I conceive to be the true functions of such Societies as ours, the means which they have of improving the intellectual culture, and furthering the progress of our country, and the most advisable course for them to pursue f the attainment of this most desirable end.

It may seem useless to dwell before this Society upon the advantages to be derived from such Institutions as our own; but I am not sure that the great power of association in developing knowledge is always appreciated at its full value. Solitary study and research is doubtless at the bottom of all advancement, but alone it can rarely accomplish any great work. It provides the raw material perhaps, the individual bricks out of which the structure is to be erected, but the aid of association is generally required to bind them into a whole. Learning was certainly never more honoured than by the Greeks, and the world has rarely if ever produced in so limited an area, and in so short an interval of time, a greater

number of profound thinkers; but the repulsive force which schemed innate in the race, and broke them up into hostile petty states, separated the philosophers also into rival sects and schools, whose jealousies had a most baneful influence in postponing the recognition of general principles. In the middle ages similar causes of isolation prevailed, aggravated by the difficulties of communication; and although the German apprentice was not free of his craft after serving his *lehr-jahre* in learning it, until he had also completed his *wandel jahre* in studying its practice in other cities, he found his progress everywhere impeded by the jealousies, which made every trade a mystery, and every branch of learning a secret to be carefully guarded. Even the invention of printing did not remedy the evil—Galileo announced his discoveries in anagrams, and even Newton was not free from the traditional secretiveness of the learned men of his day. It was known for years that he had a method of solving questions which baffled other inquirers, before he could be persuaded to publish it; and even after it was made known, the mathematicians of England and France, instead of freely communicating their processes, challenged each other to solve problems, as if the ability to perform the feat were the end and object of the study, and not merely the means of making further advances in knowledge. It was not till the age of Societies, and not even until they had been some years in operation, that the principle became admitted and acted on, that all knowledge is common property.

The first discoverer of a principle or a process rarely succeeds in bringing it to perfection. During the course of his investigation his mind has got into a beaten track, which he finds it very difficult to quit, and he is so pre-occupied with his own method of reasoning, that he fails to perceive the importance of another view, which may suggest itself immediately to a person approaching the subject with different antecedents.

Or he may not have the requisite knowledge of some other branch to perceive the full force of his own discovery. An isolated fact known to another, and to him comparatively useless, may supply a missing link, and render the whole work perfect. As the area of science has extended this has become more remarkably the case. Science has divided itself off into so many branches, that no man can attempt to have a competent acquaintance with them all; and yet they constantly interlock with, and illustrate each other—the optician can supply a hint to the chemist, and the chemist to the geologist, whilst the mathematician is ever ready to reduce to general laws the detached facts of any science, which can be stated in accurate measures of quantity. The solitary inquirer, moreover, is always liable to be wasting his labor in doing over again what has been done perhaps better before, or has been tried and found not to attain the object sought. The mere study of books alone, even if a man could be acquainted with all books, will not supply the want; for there is always in every science a mass of oral information current amongst the adepts, which has nowhere been reduced to writing; and this, very often, information of the most valuable kind to an inquirer—hints and suggestions as to what may be, but has not yet been sufficiently investigated; anomalous facts which raise a doubt whether some received theory be strictly true, and all the loose materials which are preparing for another step in the science, but which have not yet been reduced to such order, as to enable them to be laid before the public even in an ephemeral paper read before a learned society. Let any one, who thinks he is fully read up in all the latest literature upon any subject, go to London or Paris and enter into a discussion with those who are conversant with the point in question, and he will find that his knowledge is out of date, and that the minds of men are already turned towards some step in advance, which has not yet assumed such a definite shape, as to have come before

the public in print. It is in the free intercourse, and in the oral discussions, at meetings of scientific bodies, that such hints are given and received—hints which often fructify, and lead to the most important results.

It is true that no actual work is done, and no discoveries are made, by Societies. The study, and much more the discovery, must be that of the individual; but it is from the society, and from the aid and sympathy of fellow-workers, that the inquirer derives the greatest assistance. It is thus that he learns how to study, and what to observe and discover. The very explanation of his own views to others, makes him understand them the better himself; he perceives their weak points, and where they require further elucidation. The saying of Themistocles applies with full force to such a man, that thought is like a piece of tapestry in the bale, discourse is the same tapestry unrolled. Or, as one of our own men of science has said, when speaking of the learned societies: "We meet to think together, in order that we may afterwards think better alone." It is in this principle of association that the great benefit of a University education exists. It is not so much what he learns in the class-room, whatever be the merits of the professor under whom he studies, as the daily intercourse with the students themselves, that gives the young man at a University an advantage over him who studies the same books in private. The students aid each other, suggest explanations of difficulties, which perhaps, by the professor, were not recognized as difficulties at all, and each supplies something of which the other has experienced the want. Above all, they are encouraged by the sympathy and example of those engaged in similar pursuits, and a taste and respect for learning are engendered even in those, who have not the ability or the industry to excel themselves.

These are some of the advantages derived from association, besides which there are some cases in which a society may

provide the means of bringing before the public works of a character, which no individual would afford to publish on his own responsibility. Such are those most valuable contributions to science published annually by the British Association, the reports upon the present state of our knowledge in different departments; and such are the historical documents, the collection and publication of which form one of the main objects of our own Society.

When we come to apply these considerations to our own case, I may be met with the objection, that our position differs materially from that of the learned societies of Europe—that their leading spirits are original inquirers, men whose lives are devoted to their favorite studies, and with whom learning is a profession; whilst we are mere amateurs, whose time is for the most part fully occupied with other pursuits, and who look upon our connection with the society more as an agreeable means of passing an occasional evening, than with any view to increasing by our efforts the common stock of knowledge of the world. I readily admit our inferiority, and acknowledge to the fullest extent how puny and insignificant anything we can accomplish must appear to those great men, whose example we humbly imitate. But the mouse in the fable was able to give aid to the lion, and the architect of a cathedral is under some obligations to the humblest mason who squared one of its stones. A stray fact may be collected, or a chance thought evolved, which, however imperfectly turned to account by us, may lead to consequences of which we little dream. Neither can I altogether admit, that the various professional and official duties, which engross so much of our time and attention, should render us hopeless of making much progress in purely intellectual pursuits. Literature and science are daily connecting themselves more closely with the business of life, and merchants, bankers and manufacturers are assuming positions, which were formerly occupied only by

members of the learned professions. If the youth of our country is adduced as an impediment to our progress, we must remember that there are some points in which this even gives us special advantages, and at any rate it renders it the more incumbent on us to make some preparation for our approaching period of manhood. If we can do but little ourselves, we may at least foster a taste for intellectual pursuits, which may bear fruit in another generation. I never pass the Jesuits' Barracks in our city without some feeling of shame, in the comparison between the enterprize of our predecessors, and our own apathy in this respect. We boast of the superior energy of the Anglo-Saxon race; but what have we done during our hundred years' occupation of the country towards its intellectual advancement, which can compare with the foundations which they had laid, when for the most part it was an untrodden wilderness ?

We can hardly with justice say that the merits of scientific studies are not appreciated in Canada. It is rather the fashion to give a general and theoretical assent to their importance, but it is but a barren admission after all. *Laudatur et alget*—the claims of science are acknowledged, but any active co-operation is withheld. With the exception of some trifling grants to societies like our own, the withdrawal of which is annually threatened, the only scientific works which our Government directly patronizes are the Geological Survey and the Magnetic Observatory at Toronto. I am no advocate for too much reliance upon the central authority for objects, which may be attained by individual enterprize; but it is discouraging to perceive the precarious tenure by which we hold those two great establishments, which are the only ones by which Europe recognizes the existence of science in Canada at all, and which, if not supported by Government, must of necessity be abandoned. The public voice, as expressed in Parliament, is constantly inquiring what is the practical use of

them, and it desires to see our profit from them reduced to the tangible test of pounds, shillings and pence. It is vain to speak of our increasing knowledge of the laws which regulate those complex phenomena which are included in the single word weather, which are deduced, not indeed from the observations made at Toronto, but from the comparison of them with those made at observatories which have been established by almost all other Governments; and to point out the advantages, still in their infancy, which will result to the agriculturist, and to the mariner who conveys our merchandize, from their further prosecution. The utility of a harbour of refuge is something tangible, and readily admitted, whilst the expenditure of a tithe of the money, which the harbour would cost is grudged towards establishing the law of storms, which is as essential for the safety of navigation. It is in vain that you may point out the direct profit which arises from indicating the localities where minerals of economic value exist, or are likely to be found; and the saving of useless expenditure, by determining the conditions under which we cannot expect to find them. You may appeal to the calculation of Mr. James Hall, who shews that upwards of a million of dollars had been thrown away in the State of New York alone in fruitless searches for coal, before their geological survey proved that all such searches must be useless. The public still calls for more practical results, and attaches more importance to the accidental discovery of one workable copper mine, than to the researches which point out the large areas, in which the individuals interested may make a profitable search for the ore. The laborious tracing out of the folds and undulations of an apparently unimportant stratum, and the minute examination of fossils, are still looked upon as of no practical use. Men cannot perceive, that the one gives the only means of inferring, from what is laid bare to our sight, in a limited space, the nature of the rock existing in other parts, which we

cannot examine; and that fossils, totally independently of their interest to the Naturalist as links in the great chain of creation, are often the only means we have of distinguishing between rocks which are lithologically similar, but belonging to very different formations. Without a knowledge of fossils we should still be searching for coal in the Silurian rocks of the Oneida group, and for lead in the Niagara limestone. Our people at large have not yet recognized the fact, that there is hardly a walk in life that is not more or less affected by every advance in science; hardly a trade or manufacture, which does not owe its greatest triumphs to some application of what, in its day, has been looked upon as learned trifling.—and our politicians are slow to perceive that, looking upon it merely as a money investment, the providing for the country a sound scientific culture is the surest way of enabling it to respond to the demands of the Finance Minister.

If on the one hand we lament that the people undervalue all scientific investigations, which do not evidently and immediately lead to some practical use, on the other hand I am afraid that in many of our higher educational institutions there is a tendency to underrate the physical sciences for an opposite reason. From their practical value it is thought that they may safely be left to take care of themselves, whilst as a means of mental training they are considered inferior to the old time-honored subjects of academical education, the moral and mental sciences, and the study of the ancient languages—Mathematics forming a sort of debateable land, between the two systems, being a purely mental operation on the one hand and of inexhaustible practical application on the other. As we are not an institution whose proper business is education, it may appear superfluous in me to interfere upon the present occasion in the vexed question of the relative merits of the two systems, but as one of the main objects of our society is the advancement of the sciences, it will not be alto-

gether out of place if I say a few words upon that most obvious way of promoting them—the making them prominent subjects of study in our higher Seminaries of learning.

As to the mental sciences I will say nothing. I do not feel competent to speak of their merits as a means of mental training, and I should lay myself open to the same censure which I have applied to others, if I undervalued what I am myself unable to appreciate. Their advocates, however, will admit that they are not very progressive branches of learning, (which may indeed arise from their having, unlike all other human things, already arrived at perfection); but whilst the physical sciences have been advancing with such giant strides that it is almost impossible to keep pace with their progress, the mental sciences, after engaging the acutest intellects for centuries, remain substantially where they were two thousand years ago. I hope I shall not very much shock any metaphysician present, if I say that, as in the case of the celebrated combat between Gymnast and Captain Tripet, I am very much of Corporal Trim's opinion, that one good home-thrust of a bayonet is worth the whole of it.

Far be it from me to disparage in the slightest degree the cultivation of the languages of Greece and Rome. I cannot imagine a more interesting, or more appropriate study for man, than that of the laws of language, which principally distinguishes him from the brute creation, and the laws of thought as evidenced and tangibly embodied in its structure; and totally apart from the merits of the literature, an ancient language is the best, and indeed the only basis, upon which the study can be properly founded. Greek and Latin contain moreover a literature of such value and beauty, and the languages themselves are capable of such a felicity of expression, that they ever have been, and ever will be, considered an essential portion of a liberal education. So many of their words also are embodied, either by direct adoption or by the

intervention of other languages in one element of our own mother tongue, and they are so closely related collaterally to the other element, that no man can be said to be thoroughly master of his English who has not a competent knowledge of Greek and Latin; and the structure of our whole scientific nomenclature having the same origin, is another reason for becoming familiar with them. But these are the useful results of the knowledge when acquired, whereas the argument in their favor is on account of the intellectual training from the manner in which they are studied. It is impossible entirely to dissociate the two views, although, as in most controversies, the ablest advocates of one course are apt to ignore the possible value of the other. As the Volunteer movement is becoming popular amongst us, I may be allowed to take an illustration from military matters. One of the objects of drill is to teach habits of punctuality, order, quickness, and precision of movement, and the abstraction of the mind from everything except attention to the commands which may be received, so that the officer may be able to depend upon handling his men with as much accuracy and certainty, as if they formed a machine; but this might be attained by a system of drill having no relation to the soldiers' future duties. This, however, is not all the object. It is required at the same time, so to habituate them to the actual operations they have to perform, that in moments of emergency, they may go through them with precision, as by an artificially induced instinct. So it is in education: we wish to teach habits of thought which will be of useful application in after life; but we also wish to practice the students in the application of those habits to the purposes for which they are to be exercised. The Utilitarians and the Disciplinarians are both right, but both are mistaken if they think they can stand alone, and both in practice really act upon the doctrine of the other. Mr. Marsh, who in his late work on the English language takes the purely Utilitarian

view, says that "the student of language, who ends with the linguistics of Bopp and Grimm, had better never have begun; for grammar has but a value, not a worth; it is a means not an end; it teaches but half-truths, and except as an introduction to literature and that which literature embodies, it is a melancholy heap of leached ashes, marrowless bones, and empty oyster-shells." But Mr. Marsh shews infinite diligence in collecting and illustrating the bones and oyster-shells which he affects to despise; and the Disciplinarian, who considers the literature as a secondary consideration to the mental training, is yet influenced by the literature in selecting the language to form the basis of the study. Had it been otherwise, there is no doubt, that it would not have been Latin and Greek, but Sanscrit, which would have formed the text of academical lectures. It is their literary merits, and their intimate association with the daily business of our lives, with our habits of thought and forms of expression, and the constant allusions to, and illustrations from them, occurring in our own literature, which causes the former to maintain their position.

So far then the classical languages and the physical sciences are upon a par, and both are brought to the test of the practical utility of the substance which we acquire. If we look simply to the beneficial effects of the *method* of acquisition, I am unable to see any marked superiority in either. The mental processes appear to be much the same. It must be highly instructive, under able guidance, to follow the gradual development of language, and to trace back the later words and terminations to their rudimentary forms; to watch the transformations of the same element as it appears in cognate languages, and to determine the laws which guide all these changes. But there are closely analogous points to which the scientific botanist and the comparative physiologist calls the attention of his pupils. There too we trace a gradual development, a constant transform-

ati . and modification of parts as they appear in species more or less allied, till by successive steps you can follow an organ through all its metamorphisms, and detect its identity after it has entirely changed its outward appearance, and the character of tho functions which it performs; just as in two languages, you recognize the same word, though there may not be a single letter in common, and the meaning of it may have greatly changed. Nay, if you investigate one class of facts to the exclusion of the other, you miss the full force of the crowning lesson—that not only in the material universe, but in even in the realms of thought and in the modes of expressing it, one system pervades the whole creation—everywhere constant change and development with the preservation of the same typical analogies; everywhere infinite variety and complexity in the detail, with uniformity and simplicity in the plan; everywhere endless differences, but one law, and one lawgiver.

The habits of mind which are engendered in either case are the same, whether the study be that of a language or of a physical science—patient analysis of the facts as they present themselves; an aptitude to detect resemblances and to distinguish differences; caution in forming a judgment, not taking a thing for granted from the first plausible suggestion to your mind, but tracing it through all its analogies and relationships; and the power of generalizing the facts thus carefully ascertained, of separating them into groups, and binding them together by general laws. I will even go a step farther, and without assigning any superiority to the one study over the other, I will maintain, that in these important qualities the sciences had the precedence in point of time. The study of language has followed in the footsteps of that of the material world. It is only because, within the last 50 years, language has been subjected to the process of analysis and induction, a method devised and perfected for, and illustrated

by the pursuit of physical investigations, that its study has been raised from a mere acquisition of words and arbitrary rules, to the dignity of a science, and that it is entitled to the high rank which it undoubtedly occupies as an instrument of mental training.

The truth appears to me to be, that language, mathematics, and physical science, and mental science, probably, also, may, in skilful hands, be equally well employed as the basis for disciplining the mind. There will be some difference in the special tendencies of each, and in their adaptation for different degrees of maturity in the intellect to be dealt with, and to some extent in the peculiar qualities of individual intellects most likely to be benefited by them. Each of these studies has at the same time a practical use from the knowledge acquired, irrespective of the process of acquisition. Here too, there is much diversity in the universality of the application of the knowledge, and different men will attach varying degrees of importance to each, according to their several tastes and professional pursuits. There can be little doubt that the most perfect education would result from the union of them all; but the great danger lies in the extent of the field, and in the fear, least by attempting too much, we should give a mere superficial knowledge, without a thorough training in any one branch. In schools, where a uniformity of system is essential, I believe that the languages and the natural sciences will be found better adapted to the immature intellect of the boy, than either mathematical or metaphysical studies. But in the higher educational institutions, where a certain latitude of selection may be left to the students themselves, according to their several tastes and their ultimate destinations, there ought to be provision for the proper study of them all. The embryo lawyer, whose after life is to be engaged in logomachies of another kind, may find profit from being versed in the subtleties of the metaphysician; the future engineer will

probably prefer mathematics, and the medical student some of the sciences, whilst all will do well to complete their training in the study of language.

I should perhaps apologize for having wandered so far from my main subject, but the importance of the question justifies the digression. To return to our own special field—if in the pursuit of most of the sciences we labour under disadvantages from want of opportunities, there are some branches where we have peculiar facilities. The Geology and Natural History of our country must be studied on the spot, and the world of science may fairly expect that we, who have the opportunity, should supply some of the facts. These are exactly the kind of subjects in which such societies as ours are found to be most efficient, as they afford the means of bringing under notice, and placing on record, detached facts which could be made public in no other way. To these subjects our Museum also ought to be mainly if not entirely devoted, and it would be quite within our means to make it complete in these departments.

The time has indeed gone by when a Museum was a mere collection of curiosities, or as it was defined by Horace Walpole, a "hospital for everything that is singular—whether the thing has acquired singularity from having escaped the rage of time, or from any natural oddness—or from being so insignificant that nobody thought it worth while to produce any more of the same." But the legitimate field of a museum, as illustrative of useful studies, is so extensive, that a general collection with our limited means would from its incompleteness be of comparatively little value. We ought therefore to limit ourselves to some special object, and the most appropriate one would be the illustration of the natural productions and of the history of Canada.

There is also another branch of inquiry, in which it is quite within our power to assist in supplying Canada's contribution

towards the general stock of knowledge. The social sciences are daily becoming more important, and they, like all sciences, must be founded upon a wide basis of well established and carefully digested facts. To this foundation Canada has as yet hardly contributed anything, and yet there are some points in which the very youth of the country might make a collection of its statistics peculiarly valuable. It is not very certain that all deductions, founded upon the state of society in Europe are strictly applicable to a country, where the conditions are so different as they are here, and for our own sakes it would be well if we could investigate these questions from our own point of view, instead of accepting without examination the European versions of them. Moreover, for the sake of establishing the principles of the sciences themselves, a social condition, just arranging itself into order, may bring to light tendencies, which are altogether concealed in the complicated and stereotyped relations of long established communities; just as the chemist may seize a substance in its nascent state, which in its permanent compounds is too stubborn to yield itself to his analysis. Towards all this, or to whatever of it may be practicable, we have done nothing. There is hardly a civilized community anywhere which has furnished so little statistical information as Canada, and what we have done has been imperfect, and what is worse, it has often been incorrect. Now individuals may do much in this line, and Societies may press upon Government the importance of the subject, and point out the particular branches in which the collection of facts is most required. It is to the zeal of Societies in Europe that we are principally indebted for the recognition by their Governments of the utility of statistical information, and I point this out as one of the ways in which we also may do something towards furthering the objects for which we were established.

The chief object which our founders evidently had in view,

was the collection of materials for the early history of the country, or as it is expressed in the original prospectus put forth in 1824, "To discover and rescue from the unsparing hand of time, the records which yet remain of the earliest History of Canada, to preserve whilst in our power such documents as may be found amid the dust of yet unexplored depositories, and which may prove important to general history, and to the particular history of this Province,—documents valuable as regards the present and the future, and perhaps still more interesting to our inhabitants, as respects the decaying Indian tribes, than any other object of inquiry." Towards carrying out this original intention we have already done something, and it is to be hoped that we shall accomplish more. I am not in a position to offer an opinion as to the probability of our obtaining many documents illustrative of our early history, which have not already been published, or which are not in the archives of Government; but we should never lose sight of the object, and we should endeavour to make that department of our library, relating, not only to the early history of our own Province, but also to those of the adjoining Provinces and States, as complete as circumstances permit.

In the department of general literature we have also a mission open to us, which I hope there is a good prospect of our successfully accomplishing. Every thinking man must have lamented the low condition of literary taste prevailing in Canada. Go into any bookseller's shop in our provincial towns, and the principal part of his small stock consists of trashy novels and of popular compilations of the lowest literary merit, whilst he will tell you that the few good works he has on his shelves are hardly ever called for. The field for improvement is an ample one, but our attempts to lead the public taste to books of a superior class must be conducted with much judgment. Our existence depends mainly upon our subscribers, and we have few inducements to offer them, except the use of our library. We must fill it therefore

with books that they will read now, if we hope year by year to induce them to call for others of a less popular and ephemeral character. We must keep ahead of the present standard of taste, but not so far ahead that the general public will lose sight of us altogether. It is very well for a captain to lead his men, but if he is to do much good with them, he must lead them where they have no great disinclination to follow. I look, however, upon this as about the most hopeful portion of our undertaking. During the past year about one third of our members habitually resorted to the library for books and took out on the average about 8 volumes per member; and the whole number of volumes taken out in the two months preceding the fire exceeded those so called for in the three years 1857, 58 and 59. When we have again filled these empty shelves with books, which if not of the most learned and abstruse character, will be all works of acknowledged merit, useful and improving, I hope to see the contents of our library even more in demand.

We had had it in contemplation, and the requisite authority had already been given to the Council, to commence the publication of a quarterly Journal of Literature and Science, in which, besides more general matter, such papers read before the society, as are now printed from time to time in our transactions, might have appeared. This would have been filling up a void which has long been felt amongst us, but, though I hope the idea is not altogether abandoned, the occurrence of the fire, which has called for all our funds for other purposes, has caused it to be for the present postponed.

Before I close this address I must say a few words upon the two great events of the year—the late unfortunate fire, and the arrangement with the Governors of Morrin College, in consequence of which we hold our meetings in this room. The fire was the more annoying because I had already made arrangements for commencing to move into our present quarters on the very next day. The result has been the entire loss of

our Museum and a very serious destruction in the Library. Some of our best books have fortunately been saved, and are not irremediably injured; but it has been a melancholy task to glean over the heaps of ruined books in the hopes of recovering some odd volume to perfect sets, and to find the charred remains of valuable works, which we may never replace, and of some of those manuscript documents which it was our special object to preserve from destruction. Still the case is not hopeless; we commence life anew with about 800 volumes, almost all of them works of value, and the Council has already been engaged in preparing lists of works to be purchased with the sum which we have received on our insurance. We hope before many weeks therefore to see our shelves again filled with some two or three thousand volumes, and that the rapid increase in the number of our members, (46 having been enrolled since we last met) will enable us to make large annual additions to the stock.

With the Governors of Morrin College we have concluded an agreement to the following effect. We are to have accommodation in their building for our Library, Museum, and Assistant Secretary, rent free; in return for which we are to expend annually on books of their selection, and to belong to them in the event of separation, to the amount of £30, which is about half of what we paid for rent and taxes in our former rooms; and we are to allow the Professors and Students of the College the use of our Library, under such restrictions for the safe preservation of the books as may be agreed upon by a joint Committee. A similar free use of such books as may be obtained by them by purchase or bequest is to be accorded to us. The same regulations will apply to the Museum, whenever we may be able to replace the one we have lost. I think that this arrangement will be found mutually advantageous to both parties. The College will be saved any large expenditure for a Library and will be able to devote all its funds to the maintenance of a staff of Professors; and we

shall save the amount we paid for rent, for the books we purchase for them will be as accessible to us as our own, and we shall have besides the prospect of seeing additions to the Library made by them irrespective of our funds. There will arise moreover to us this further advantage, that without losing in any way our own identity, or our control over our own affairs, we shall have interested in our favor a large and influential body, and there is little doubt that the students who during their course have used our Library as members of the College, will, on leaving, continue their connection with us as our own members.

I cannot leave this subject without congratulating the Governors of the College and the public of Quebec upon the successful establishment of the Institution so liberally endowed by the late Dr. Morrin, and upon the highly encouraging number of students with which it has opened, under the able guidance of Professor Hatch. It supplies a want which must long have been felt by the English speaking portion of the inhabitants of Quebec, and I trust that they will be sufficiently alive to their own interests to give it effective support and that, as its utility becomes annually more manifest, others may be found to emulate the munificence of Dr. Morrin. To us also it is a subject of congratulation. Every step which is taken to cultivate the intellect of the rising generation is a step in advance for us; every Professor of this, or any other College, who becomes resident in Quebec, may be looked forward to as an active co-labourer, with more opportunities of usefulness than most of us enjoy; and every student who completes his Academical course will be ready to fill one of the places, which we shall ere long leave vacant. May they prove more efficient promoters of Literature and Science than their predecessors, who, for the most part, have only been able to bring good will to the task, and may their labors enable our country to take a place in the world of letters befitting its numerous natural advantages.